UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF: SR-6J

April 5, 2010

Frank A. Blaha
Chief, Environmental Compliance
United States Coast Guard
Civil Engineering Unit
1240 East Ninth Street, Room 2179
Cleveland, OH 44199-2060

Re: Review of Responses to EPA February 22, 2010 Comments
Draft Quality Assurance Project Plan and
Draft Field Sampling Plan
U.S. Coast Guard Atwater Facility
Detroit, Michigan
Tetra Tech NUS, Inc., December, 2009
RTCs transmitted by March 22, 2010 email from Lynn M. Keller

Dear Mr. Blaha:

U.S. EPA has completed its review of the subject responses to comments for the Detroit Atwater site. All of our comments have been satisfactorily addressed and we recommend that the documents be finalized. The signed QAPP worksheets #3 and #4 are enclosed.

If you have any questions I can be reached at 312 886-4843.

Sincerely,

W. Owen Thompson
Remedial Project Manager
Superfund Remedial Response Section Six

cc: Steven Padovani, Chief, RRS#6, U.S. EPA
Mike Chrystof, U.S. EPA
Lynn Keller, USC

QAPP Worksheet #3 Distribution List/Project Personnel Sign-Off

QAPP Recipients	Title	Organization	Telephone Number	Fax Number	Email Address	Signature/Date QAPP Read	Document Control Number
Frank Blaha	Program Manager	USCG	216.902.6255	216.902.6277	Frank.A.Blaha@uscg.mil	3/19/2010	NA
Lynn Keller	Project Manager	USCG	216.902.6258	216.902.6277	Lynn.M.Keller@uscg.mil	3/19/10	NA
Owen Thompson	USEPA Remedial Project Manager	USEPA Region 5	312.886.4843	312.353.8426	Thompson.Owen@epa.gov	4/5/10	NA
Joseph Logan	Project Coordinator	Tetra Tech NUS, Inc.	412.921.7231	412.921.4040	Joe.Logan@tetratech.com	3/16/10	NA
Joseph Samchuck	Data Quality Assurance Manager	Tetra Tech NUS, Inc.	412.921.8510	412.921.4040	Joseph.Samchuck@tetratech.com	3/16/10	NA
Phil Komar	Laboratory Project Manager	TriMatrix Laboratories, Inc.	616.846.9528	616.942.7463	KomarP@trimatrixlabs.com		NA
Rick Wilburn	Laboratory Quality Assurance Manager	TriMatrix Laboratories, Inc.	616.940.4246	616.942.7463	WilburnR@trimatrixlabs.com		NA

Note: Copies of the QAPP will be distributed to the individuals above. The copies will consist of the following documents: QAPP and any subsequent QAPP revisions and addendums. The project personnel sign-off table above documents key project personnel who have read the applicable sections of the QAPP and will perform the tasks as described in the QAPP.

QAPP Worksheet #4 Project Personnel Sign-Off

Organization/Project Personnel	Title	Telephone Number	Signature	Date QAPP Read
Frank Blaha	Program Manager	216.902.6255		
Lynn Keller	Project Manager	216.902.6258		3/19/10
Owen Thompson	USEPA Remedial Project Manager	312.886.4843		4/5/10
Joseph Logan	Project Coordinator	412.921.7231		3/16/10
Joseph Samchuck	Data Quality Assurance Manager	412.921.8510		3/16/10
Phil Komar	Laboratory Project Manager	616.942.7463		
Rick Wilburn	Laboratory Quality Assurance Manager	616.940.4246		

RESPONSE TO USEPA RESPONSES AND ADDITIONAL COMMENTS
DRAFT FSP/QAPP
USCG ATWATER FACILITY, DETROIT, MI
TTNUS CONTRACT HSCG-83-08-D-3CL109
TASK ORDER HSCG-83-09-J-3CL358
P/N 21-09-8393CL358
LATE MARCH 2010
(INCLUDES USEPA (4/05/2010) REPONSES)

Responses and additional comments by USEPA were provided in a letter dated February 22, 2010.

QUALITY ASSURANCE PROJECT PLAN COMMENTS

1. QAPP Worksheet #12-1 Measurement Performance Criteria (PAH-soil): In the column "Measurement Performance Criteria", several tables are listed, Table D-3 QSM Version 3, and Table D-7 QSM Version 3. Text states these are located in attached Appendix A and B of the QAPP. The QSM is indicated to be the DoD Quality Systems Manual Version 3. There is no indication of where these can be found in the QAPP. The tables were eventually found following Worksheet #36-A (soil, PAHs), but the QAPP user should not have to search the entire document to find the required tables. Reference the location in the Table of Contents.

Response: The tables were out of place in the Draft and will be moved to follow Worksheet 12-1 (PAHs – Soil). The locations of the tables will be noted in the Table of Contents.

USEPA RESPONSE: Concur.

2. QAPP Worksheet #15-1 Reference Limits and Evaluation (soil): Selenium appears to be the only analyte in which the Performance Standard (0.4 mg/kg) is lower than the Laboratory RL (0.5). Is the lab not capable of quantifying selenium to the performance standard specified? Also, it would be helpful to indicate the units of measures for both the Lab RL, and Lab MDL, as they are not specified in the table, but must be implied.

Response: In a follow-up discussion with the laboratory, the laboratory reported that for selenium their current MDL is 0.049, and their lowest calibration standard is equivalent to 0.1 mg/kg. By having an RL (0.4 mg/kg) that is greater than the lowest calibration standard (0.1 mg/kg), the laboratory is able to demonstrate the ability to quantify detectable concentrations below the RL. As a general note, a laboratory's RL should not be lower than its lowest calibration standard. The RL value on the worksheet will be revised to 0.4 mg/kg. Also, the units of measure will be added to the Lab DL and the Lab MDL columns.

USEPA RESPONSE: Understood. Concur.

3. QAPP Worksheet #22 Field Equipment Calibration, Maintenance, Testing and Inspection: Table indicates the use of a PID to screen for VOCs. Analytes to be sampled are

PAHs and metals. Why the use of a PID? There is no indication for the use of XRF for screening. What field screening method will be utilized?

Response: The PID is being used as part of routine health and safety procedures to check the soil samples for the presence of VOCs. Sample locations and depths have been identified in the FSP. No field screening procedures are being used.

USEPA RESPONSE: Understood.

4. QAPP Worksheet #28-1 QC Samples (6020A Metals) soil: Worksheet states that the Internal Standard range is 30-120% intensity. However, the method SOP GR-01-129 Rev. 3.8 Section 18.9 states that the acceptable range is to be 70-120%. Please explain.

Response: The 30 to 120% are the limits per the DOD QSM version 4.1; however, since the limits per the Laboratory SOP are more conservative, the text will be revised to reflect the laboratory limits of 70 to 120%.

USEPA RESPONSE: Concur.

5. QAPP Worksheet #28-1 QC Samples (PAH) soil: In the footer to the Worksheet, the abbreviation for Gas Chromatograph/Mass Spec should be GC/MS, not GM/MS.

Response: The correction will be made.

USEPA RESPONSE: Concur.

6. QAPP Worksheet #36-A Data Validation Qualification Summary: There is no Quality Control Requirements, with their associated flagging criteria, for Holding Times and Sample Preparation for any of the Data Validation worksheets. At the very least, the worksheets should indicate that data generated from samples that do not meet holding times and sample preservation requirements should be flagged "R", rejected.

Response: A row for Holding Times and Sample Preparation and all related information will be added for each analysis.

USEPA RESPONSE: Comment partially addressed. Although a row for Hold Times/Sample Preservation was added to these worksheets, the maximum holding times allowed are doubled from those specified in QAPP Worksheet #19. Metal samples are allowed to go over 180 days before analysis, with the data then being flagged J/UJ. Only after >360 days (almost a full year) to analysis are (non-detect) data to be rejected. For mercury, instead of 28 days from collection to analysis, the maximum is doubled to >56 days. For PAHs, the maximum time from extraction to analysis is doubled from 40 to >80 days. The holding times have been increased to what appears to be an excessive amount, particularly for organic analysis. Also, there is no mention at all of what the acceptable preservation temperature for samples will be and what validation/qualification criteria are to be applied. Tight controls of holding times/sample temperatures are recommended.

Response: The holding time to analysis is changed and qualifications for improper temperature and preservation were added. However, it is the intent of the USCG to meet the holding times and sample preservation requirements so that the use of these qualifiers will not be necessary.

USEPA RESPONSE (4/05/2010): Concur.

7. QAPP Worksheet #36-A Data Validation Qualification Summary: For LCS and MS/MSD QC Requirements for both the Metals (soil) and Mercury (soil), the sample percent recovery has to be <10% before any data is qualified as "R". This appears to be an excessively low, lower evaluation limit, especially for metals that have an acceptable range of 80-120% Recovery. Please explain. Also, why are MS/MSD Evaluation Limits expressed as LCD limits?

Response: The value of <10% is a typographical error and is incorrect. For MS/MSD evaluation it should be <30%, and for LCS evaluation it should be <50% per the USEPA National Functional Guidelines for Inorganic Data Evaluation; Worksheet 36 will be revised accordingly. MS/MSD evaluation limits will be revised to be expressed as MS/MSD limits not LCS; the reference to LCS was a typographical error.

USEPA RESPONSE: The revised Worksheet 36-A for Mercury needs correction. For MS/MSD, the percent recovery range in the first Evaluation Limit should not be 11-79, as the new lower limit is 30.

Response: The percent recovery limit will be revised to 30 to 79%.

USEPA RESPONSE (4/05/2010): Concur.

8. QAPP Worksheet #36-A Data Validation Qualification Summary: For PAHs soil Second Source Calibration Verification, the Evaluation Limits and subsequent Data Qualifications do not seem logical. Why are LCS sample percent recovery values and related data qualifications being listed here? The Evaluation Limits do not appear to be correct. Please explain.

Response: This is a cut and paste error LCS recovery limits are not applicable to Second Source calibrations. The first row Evaluation Limit cell will be revised to say "Compound Percent Recovery 75 to 125%" and the corresponding Data Qualification cell will be revised to say "data are not qualified based upon second source calibration verification noncompliances." The second and third rows indicating %Rs greater than 125% and less than 10% are not applicable and will be deleted.

USEPA RESPONSE: It is noted that for Second Source Calibration Verification, the worksheet was modified to state that data will not be qualified based on this criteria. If so, then strict adherence to the supplied Method SOP GR-04-103 (Rev. 5.5), Section 14.5.10 should be required. If second source calibration fails, corrective action will be taken up to and including preparation and running new initial calibration standards. Repeat the second source analysis for confirmation that the corrective action was effective.

Response: Tetra Tech personnel discussed the SOP and protocol with laboratory (Trimatrix) personnel. For this circumstance strict adherence to the supplied Method SOP GR-04-103 (Rev. 5.5), Section 14.5.10 is employed by the laboratory.

USEPA RESPONSE (4/05/10): Concur

9. QAPP Worksheet #36-A Data Validation Qualification Summary: For LCS and MS/MSD QC Requirements for PAHs (soil), if an LCS or MS/MSD has a %R > 10%, table states non-detects are to be flagged R and rejected? PAHs (note QSM Table is labeled D-6, not D-7 that is indicated in the QAPP text) have an acceptable Lower Control Limit averaging about 35-45% Recovery. Please explain.

Response: There are no methods or EPA defined criteria for evaluating LCS or MS/MSD recoveries below the lower quality control limit for PAHs. Hence professional judgment is applied and nondetects with MS/MSD and/or LCS %Rs less than (<) 10% will be rejected. The text will also be revised from %R > 10% to %R<10%. Also, the reference to Table D-6 will be revised to Table G-7 per DOD QSM version 4.1.

USEPA RESPONSE: Comment partially addressed. Although there may be no specifically defined criteria as per method/EPA defined criteria, the QSM Table in Appendix A does not indicate that for LCS, it is acceptable to have an LCS recovery of <10%. For a matrix spike/spike duplicate, matrix interference could account for such a low recovery. But an LCS (Laboratory Control Sample) should not normally have a recovery suppressed to this point.

Response: The low qualification limit was changed to the lower QC limit - 5%. This information was excluded from the worksheets initially provided to the USEPA. This change is reflected in the revised worksheets.

USEPA RESPONSE (4/05/10): Concur.

ADDITIONAL COMMENTS FOR QAPP:

10. ADDITIONAL COMMENT ON WORKSHEET #12-1 Measurement Performance Criteria (Mercury): There should be a separate Worksheet 12-1 for Mercury analysis, rather than combining them into just one for "Metals". Mercury by Method 7471A has some different evaluation and acceptance requirements from Method 6020A (ICP). A separate Worksheet 12-1 for Mercury should be included in the QAPP.

Response: A separate Worksheet #12-1 for Mercury will be provided. The current Worksheet #12-1 for Metals will be revised to exclude mercury. The Precision – Overall RFD criterion on the Metals Worksheet has been revised from <500% to <50%.

USEPA RESPONSE (4/05/10): Concur.

11. ADDITIONAL COMMENT ON WORKSHEET #19 Analytical SOP Requirements: There were no SOPs submitted for all the additional extraction and analysis methods; TCLP metals, TCLP VOCs, and Ph. These must be included in the QAPP SOP attachment (CD). Also, any related Measurement Performance Criteria, Acceptance Criteria, etc. must be included in all the appropriate QAPP Worksheets as updates.

Response: The analysis and results of IDW have no effect on the evaluation or remediation of the site. Therefore, the level of documentation of the QA/QC of the IDW analyses does not need to be the same as that of the investigation samples. This approach to IDW is the same as that used by the US Navy for similar UFP-QAPPs. In addition, the IDW analytical results will not be validated, so criteria related to the validation of this data are not needed. A limited amount of information about the IDW analyses has been included (Worksheets #14 and #19) for completeness and to aid the field crew in sample collection. USEPA agreed with this reasoning during the conference call on March 10, 2010.

USEPA RESPONSE (4/05/10): Concur.

12. ADDITIONAL COMMENT ON WORKSHEET #19 Analytical SOP Requirements: It should be noted that there is an error indicating which SOPs are for which method according to the SOPs submitted in the original CD: GR-01-123 is for Method 7471A, GR-01-129 is for 6020A, GR-09-103 is for 3550B. There appears to be no SOP GR-01-139 included, as was stated in this Worksheet. Suggest rechecking that all SOPs are indicated correctly, and included on updated CD.

Response: The SOP references to the analytical methods on Worksheet #19 have been corrected, and the correct SOPs for the analyses and sample preparation steps are now included on Worksheet #19. The SOP GR-01-139 was inadvertently excluded from the Draft QAPP and will be added.

USEPA RESPONSE (4/05/10): Concur.

13. ADDITIONAL COMMENT ON WORKSHEET #36-A (Metals): It was noted that there is no QC requirements, acceptance criteria, nor data validation criteria included in this worksheet for ICP Interference Check Samples (ICS A and ICS AB). This is a Measurement Performance Criteria for Metals by ICP included in Worksheet 12-1 Metals. It is also a validation criteria in USEPA Laboratory Data Validation Functional Guidelines for Inorganic Data Review. ICP Interference Check Samples criteria should be included in this worksheet.

Response: The requested information was added. See attached revised sheet.

USEPA RESPONSE (4/05/10): Concur.

14. ADDITIONAL COMMENT ON WORKSHEET #36-A (Metals): It was noted that there is no QC requirements, acceptance criteria, nor data validation criteria included in this worksheet for neither Post Digestion Spike, nor Serial Dilution. These are Measurement Performance Criteria for Metals included in Worksheet 12-1 Metals. They are also validation criteria in USEPA Laboratory Data Validation Functional Guidelines for Inorganic Data Review. Both Post Digestion Spike and Serial Dilution criteria should be included in this worksheet.

Response: The requested information was added. See attached revised sheet.

USEPA RESPONSE (4/05/10): Concur.

15. ADDITIONAL COMMENT ON WORKSHEET #36-A (PAHs): It was noted that this worksheet for PAHs include criteria for ICB/CCB. Isn't that normally a QC criteria for metals methods? Also, it was noted that there is no QC requirements, acceptance criteria, nor data validation criteria included in this worksheet for both Surrogate Recoveries and Internal Standards. These are Measurement Performance Criteria for PAHs included in Worksheet 12-1 PAHs. They are also validation criteria in USEPA Laboratory Data Validation Functional Guidelines for Organic Data Review. Both Surrogate Recoveries and Internal Standards criteria should be included in this worksheet.

Response: Agree. ICB/CCB is inappropriate and was deleted. Surrogate and Internal Standard criteria were added. See attached revised sheet.

USEPA RESPONSE (4/05/10): Concur.

FIELD SAMPLING PLAN COMMENTS

1. Section 2.1.2.1 Vertical and Lateral Delineation of Soil Samples: states that soil samples will be continually screened using the PID and visual observations. The purpose of the screening is unclear because the sample locations within the boring (2' below pavement and 2' above groundwater) are predefined and therefore not subject to field adjustment. Also, neither a PID nor visual observation is very effective for detecting PAHs or metals in soils.

Response: Soil will be screened with a PID as part of routine heath and safety procedures. The soil will be inspected and observations recorded for the boring log. Neither the PID nor the visual observations are intended to be used to select sample locations.

USEPA RESPONSE: Understood.

2. Section 4.0 Waste Characterization Samples: states that soil will be placed back into its respective soil boring; therefore no drums will be accumulated and no waste characterization samples will be collected. It is unlikely that all the soils from the borings can be successfully re-deposited into small direct-push boreholes. This approach also risks cross-contaminating different strata at the site. Revise the FSP to provide for collection and proper disposal of soil IDW.

Response: The FSP will be revised to include IDW collection, sampling, analysis, and off-site disposal. IDW, such as soil cuttings from DPT activities and decontamination fluids, will be contained in new 55-gallon steel drums. One to two drums are anticipated to be needed for this field work. The contents of each drum will be samples for characterization for offsite disposal. The existing data shows low levels of contamination, and the IDW is not expected to be hazardous. Each sample will be subjected to the Toxicity Characteristic Leaching Procedure (TCLP) followed by analysis of the extract for the TCLP metals and volatile organic compounds. The pH of each sample will also be analyzed to confirm that the waste does not display the characteristic of corrosivity. Finally, based on the results of the characterization of the IDW, a waste

disposal company will be subcontracted to transport and dispose the IDW at an appropriate facility.

USEPA RESPONSE: We note that Ph AND TCLP (Metals and Volatiles) are included in updated worksheets #14 AND #19. SOPs and acceptance criteria and measurement performance criteria must also be submitted (See comment #11). They are not included in the updated QAPP pages/FSP we received.

Response: During the conference call on March 10, 2010, USEPA agreed that the IDW-related information that is included in the QAPP is sufficient. Please refer to the response to QAPP Comment No. 11.

USEPA RESPONSE (4/05/10): Concur.

3. Section 5.6 Equipment Decontamination and IDW Management: States that decontamination of DPT equipment will be done over a non-paved area. All this does is move the potentially-contaminated soil from the equipment onto the surface soil at the site. Revise the FSP to for the proper management and disposal of contaminated soil and rinse water from equipment decontamination.

Response: The FSP will be revised to include procedures for the collection and off-site disposal of decontamination fluids. Decontamination fluids will be collected for containerization and disposal. Small-sized equipment will be decontaminated in a bucket. Decontamination water from the DPT rig will be captured either by a clean tub or by plastic sheeting supported below by boards to create a basin. The decontamination water will then be transferred to an IDW drum. If plastic sheeting is used, the sheeting will be drummed with the rest of the IDW.

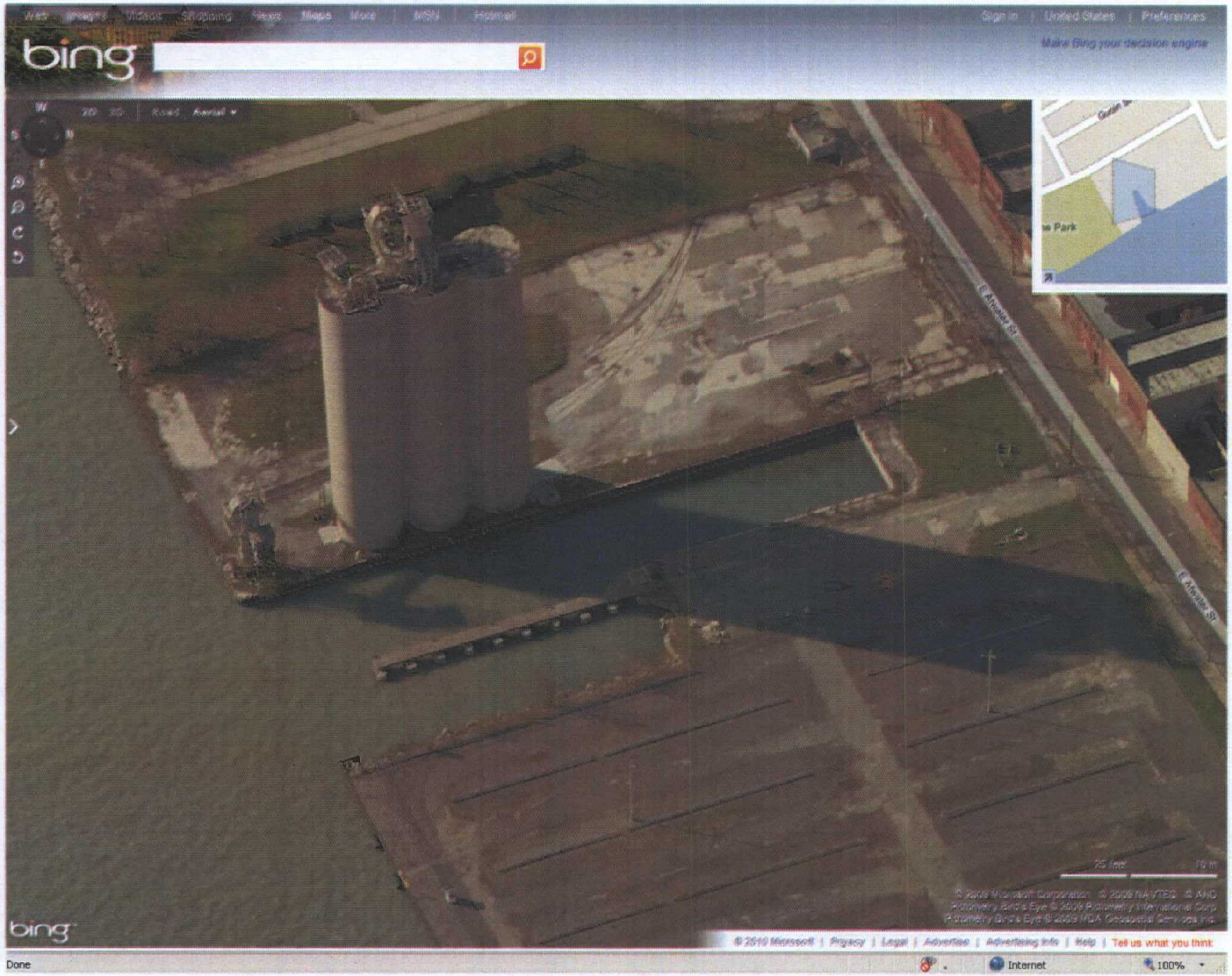
USEPA RESPONSE: Understood and Concur

4. Section 7 Quality Assurance/Quality Control: States that analytical results for removal confirmation samples will include Level 3 data reporting and validation and so will groundwater samples. No removal activities or groundwater sampling is part of this work so please remove this section.

Response: The references to removal activities and groundwater samples will be deleted. In addition, the first sentence of the second paragraph will be revised to indicate that the analytical results for the soil samples will include level 3 data reporting and validation, rather than Level 2.

USEPA RESPONSE: Understood and Concur.

Print this page in a more readable format: Click **Print** next to the upper-right corner of the map.



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U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: January, 2009

FROM: Michael Chrystof

TO: Owen Thompson, Remedial Project Manager

SUBJECT: US-EPA Comments on Draft QAPP (dated December, 2009), for USCG Atwater Detroit site, Detroit, MI.

Attachment:

US-EPA COMMENTS ON DRAFT QAPP, USCG ATWATER DETROIT

COMMENTS:

1. **QAPP Worksheet #12-1 Measurement Performance Criteria (PAH-soil):** In the column "Measurement Performance Criteria", several tables are listed, Table D-3 QSM Version 3, and Table D-7 QSM Version 3. Text states these are located in attached Appendix A and B of the QAPP. The QSM is indicated to be the DoD Quality Systems Manual Version 3. There is no indication of where these can be found in the QAPP. The tables were eventually found following Worksheet #36-A, but the QAPP user should not have to search the entire document to find the required tables. Also reference the location in the Table of Contents.

2. **QAPP Worksheet #15-1 Reference Limits and Evaluation (soil):** Selenium appears to be the only analyte in which the Performance Standard (0.4 mg/kg) is lower than the Laboratory RL (0.5). Is the lab not capable of quantifying selenium to the performance standard specified? Also, it would be helpful to indicate the units of measures for both the Lab RL, and Lab MDL, as they are not specified in the table, but must be implied.

3. **QAPP Worksheet #22 Field Equipment Calibration, Maintenance, Testing and Inspection:** Table indicates the use of a PID to screen for VOCs. Analytes to be sampled are PAHs and metals. Why the use of a PID? There is no indication for the use of XRF for screening. What field screening method will be utilized?

4. **QAPP Worksheet #28-1 QC Samples (PAH) soil:** In the footer to the Worksheet, the abbreviation for Gas Chromatograph/Mass Spec should be GC/MS, not GM/MS.

5. **QAPP Worksheet #36-A Data Validation Qualification Summary:** There is no Quality Control Requirements, with their associated flagging criteria, for Holding Times and Sample Preparation for any of the Data Validation tables. At the very least, the table should indicate that data generated from samples that do not meet holding times and sample preservation requirements should be flagged "R", rejected.

6. **QAPP Worksheet #36-A Data Validation Qualification Summary:** For LCS and MS/MSD QC Requirements for both the Metals (soil) and Mercury (soil), the sample percent recovery has to be <10 % before any data is qualified as "R". This appears to be an excessively low, lower evaluation limit, especially for metals that have an acceptable range of 80-

120% % Recovery. Please explain. Also, why are MS/MSD Evaluation Limits expressed as LCD limits?

7. **QAPP Worksheet #36-A Data Validation Qualification Summary:** For PAHs soil Second Source Calibration Verification, the Evaluation Limits and subsequent Data Qualifications do not seem logical. Why are LCS sample percent recovery values, and related data qualifications being listed here? The Evaluation Limits do not appear to be correct. Please explain.

8. **QAPP Worksheet #36-A Data Validation Qualification Summary:** For LCS and MS/MSD QC Requirements for PAHs (soil), the sample percent recovery has to be <10 % before any data is qualified as "R". This appears to be an excessively low, lower evaluation limit, especially that PAHs (note QSM Table D-6, not Table D-7 that you have indicated in the QAPP) have an acceptable Lower Control Limit of no lower than 30% Recovery. Please explain.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: January 11, 2009

FROM: Michael Chrystof

TO: Owen Thompson, Remedial Project Manager

SUBJECT: US-EPA Comments on Draft QAPP (dated December, 2009), for USCG Atwater Detroit site, Detroit, MI.

Attachment:

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF: SR-6J

January 11, 2010

Frank A. Blaha
Chief, Environmental Compliance
United States Coast Guard
Civil Engineering Unit
1240 East Ninth Street, Room 2179
Cleveland, OH 44199-2060

Re: Review of Draft Quality Assurance Project Plan and
Draft Field Sampling Plan
U.S. Coast Guard Atwater Facility
Detroit, Michigan
Tetra Tech NUS, Inc., December, 2009
Transmitted by your December 22, 2009 letter

Dear Mr. Blaha:

U.S. EPA has completed its review of the subject documents for the Detroit Atwater site. Our comments are attached.

If you have any questions I can be reached at 312 886-4843.

Sincerely,

W. Owen Thompson
Remedial Project Manager
Superfund Remedial Response Section Six

cc: Steven Padovani, Chief, RRS#6, U.S. EPA
Mike Chrystof, U.S. EPA
Lynn Keller, USCG

U.S. Environmental Protection Agency Region 5

Review of Draft Quality Assurance Project Plan and
Draft Field Sampling Plan
U.S. Coast Guard Atwater Facility
Detroit, Michigan
Tetra Tech NUS, Inc., December, 2009

EPA Comments Provided January 11, 2010

QUALITY ASSURANCE PROJECT PLAN COMMENTS

1. **QAPP Worksheet #12-1 Measurement Performance Criteria (PAH-soil):** In the column "Measurement Performance Criteria", several tables are listed, Table D-3 QSM Version 3, and Table D-7 QSM Version 3. Text states these are located in attached Appendix A and B of the QAPP. The QSM is indicated to be the DoD Quality Systems Manual Version 3. There is no indication of where these can be found in the QAPP. The tables were eventually found following Worksheet #36-A (soil, PAHs), but the QAPP user should not have to search the entire document to find the required tables. Reference the location in the Table of Contents.

2. **QAPP Worksheet #15-1 Reference Limits and Evaluation (soil):** Selenium appears to be the only analyte in which the Performance Standard (0.4 mg/kg) is lower than the Laboratory RL (0.5). Is the lab not capable of quantifying selenium to the performance standard specified? Also, it would be helpful to indicate the units of measures for both the Lab RL, and Lab MDL, as they are not specified in the table, but must be implied.

3. **QAPP Worksheet #22 Field Equipment Calibration, Maintenance, Testing and Inspection:** Table indicates the use of a PID to screen for VOCs. Analytes to be sampled are PAHs and metals. Why the use of a PID? There is no indication for the use of XRF for screening. What field screening method will be utilized?

4. **QAPP Worksheet #28-1 QC Samples (6020A Metals) soil:** Worksheet states that the Internal Standard range is 30-120% intensity. However, the method SOP GR-01-129 Rev. 3.8 Section 18.9 states that the acceptable range is to be 70-120%. Please explain.

5. **QAPP Worksheet #28-1 QC Samples (PAH) soil:** In the footer to the Worksheet, the abbreviation for Gas Chromatograph/Mass Spec should be GC/MS, not GM/MS.

6. **QAPP Worksheet #36-A Data Validation Qualification Summary:** There is no Quality Control Requirements, with their associated flagging criteria, for Holding Times and Sample Preparation for any of the Data Validation worksheets. At the very least, the worksheets should indicate that data generated from samples that do not meet holding times and sample preservation requirements should be flagged "R", rejected.

7. **QAPP Worksheet #36-A Data Validation Qualification Summary:** For LCS and MS/MSD QC Requirements for both the Metals (soil) and Mercury (soil), the sample percent recovery has to be <10% before any data is qualified as "R". This appears to be an excessively low, lower evaluation limit, especially for metals that have an acceptable range of 80-120% Recovery. Please explain. Also, why are MS/MSD Evaluation Limits expressed as LCD limits?

8. **QAPP Worksheet #36-A Data Validation Qualification Summary:** For PAHs soil Second Source Calibration Verification, the Evaluation Limits and subsequent Data Qualifications do not seem logical. Why are LCS sample percent recovery values and related data qualifications being listed here? The Evaluation Limits do not appear to be correct. Please explain.

9. **QAPP Worksheet #36-A Data Validation Qualification Summary:** For LCS and MS/MSD QC Requirements for PAHs (soil), if an LCS or MS/MSD has a %R > 10%, table states non-detects are to be flagged R and rejected? PAHs (note QSM Table is labeled D-6, not D-7 that is indicated in the QAPP text) have an acceptable Lower Control Limit averaging about 35-45% Recovery. Please explain.

FIELD SAMPLING PLAN COMMENTS

1. **Section 2.1.2.1 Vertical and Lateral Delineation of Soil Samples:** states that soil samples will be continually screened using the PID and visual observations. The purpose of the screening is unclear because the sample locations within the boring (2' below pavement and 2' above groundwater) are predefined and therefore not subject to field adjustment. Also, neither a PID nor visual observation is very effective for detecting PAHs or metals in soils.
2. **Section 4.0 Waste Characterization Samples:** states that soil will be placed back into its respective soil boring; therefore no drums will be accumulated and no waste characterization samples will be collected. It is unlikey that all the soils from the borings can be successfully re-deposited into small direct-push boreholes. This approach also risks cross-contaminating different strata at the site. Revise the FSP to provide for collection and proper disposal of soil IDW.
3. **Section 5.6 Equipment Decontamination and IDW Management:** States that decontamination of DPT equipment will be done over a non-paved area. All this does is move the potentially-contaminated soil from the equipment onto the surface soil at the site. Revise the FSP to for the proper management and disposal of contaminated soil and rinse water from equipment decontamination.
4. **Section 7 Quality Assurance/Quality Control:** States that analytical results for removal confirmation samples will include Level 3 data reporting and validation and so will groundwater samples. No removal activities or groundwater sampling is part of this work so please remove this section.

U.S. Department of Homeland Security

United States Coast Guard

Commanding Officer
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Civil Engineering Unit Cleveland

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United States Environmental Protection Agency
Region 5
Superfund Div, SR-6J
Remedial Response Section 6
Mr. Owen Thompson
77 West Jackson Boulevard
Chicago, IL 60604-3590

Dear Mr. Thompson:

Please find the attached Draft Final QAPP and FSP for USCG Atwater Facility for your review and comment.

If you have any questions or would like to discuss the site work in detail, please contact Ms. Lynn Keller at (216) 902-6258.

Sincerely,

Frank A. Blaha
Chief, Environmental Compliance
By direction of the Commanding Officer

Enclosures (1) Draft Final QAPP (hard copy and CD): USCG Atwater Facility, Detroit, Michigan, December 2009
(2) Draft Final FSP (hard copy and CD): USCG Atwater Facility, Detroit, Michigan, December 2009

Copy: CG Sector Detroit, (w/o Encl)